

Title (en)

HAPLOIDOME DETERMINATION BY DIGITIZED TRANSPOSONS

Title (de)

HAPLOIDOMBESTIMMUNG DURCH DIGITALISIERTE TRANSPOSONE

Title (fr)

DÉTERMINATION DE L'HAPLOÏDOME PAR TRANSPOSONS NUMÉRISÉS

Publication

**EP 3146046 B1 20200311 (EN)**

Application

**EP 15727787 A 20150521**

Priority

- US 201462002733 P 20140523
- US 2015032066 W 20150521

Abstract (en)

[origin: WO2015179706A1] In certain embodiments, the present invention provides a way of "digitally" marking different the alleles of different chromosomes by using a transposase to insert differently barcoded transposons into genomic DNA before further analysis. According to this method, each allele becomes marked with a unique pattern of transposon barcodes. Because each unique pattern of transposon barcodes identifies a particular allele, the method facilitates determinations of ploidy and copy number variation, improves the ability to discriminate among homozygotes, heterozygotes, and patterns arising from sequencing errors, and allows loci separated by uninformative stretches of DNA to be identified as linked loci, thereby facilitating haplotype determinations. Also provided is a novel artificial transposon end that includes a barcode sequence in two or more positions that are not essential for transposition.

IPC 8 full level

**C12N 15/10** (2006.01); **C12Q 1/68** (2018.01)

CPC (source: CN EP US)

**C12N 15/1065** (2013.01 - CN EP US); **C12N 15/1082** (2013.01 - CN EP US); **C12Q 1/6806** (2013.01 - CN EP US)

Citation (examination)

- US 2013143745 A1 20130606 - CHRISTEN BEAT [US], et al
- WO 2015179706 A1 20151126 - FLUIDIGM CORP [US]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2015179706 A1 20151126**; CA 2949952 A1 20151126; CA 2949952 C 20210323; CN 107075509 A 20170818; CN 107075509 B 20210309; EP 3146046 A1 20170329; EP 3146046 B1 20200311; US 10526601 B2 20200107; US 2015337298 A1 20151126

DOCDB simple family (application)

**US 2015032066 W 20150521**; CA 2949952 A 20150521; CN 201580040110 A 20150521; EP 15727787 A 20150521; US 201514719149 A 20150521